WHY THE FOCUS ON AQUACULTURE?

Wild-harvest fisheries are fully over-exploited because of over-fishing (Haylor, Briggs & et al, 2003). The global demand for fish on the other hand is growing and is still projected to increase for high end value fish products. At present, fisheries are unable to match their supply with this growing demand for fish protein. Taking a long-term view, aquaculture continues to offer the only viable alternative to continued depletion of South Africa’s natural fisheries. Thus, sustainable aquaculture should be a priority in order to meet the strong demand for fish (DEAT, 2006). South Africa is already affected with the challenges emerging regarding the sector’s ability to meet future demand for fish. Presently, the country is importing more fish products than it exports. Furthermore, rapid population growth and urbanisation has slowly led to changes in the demand and supply of animal protein like fish.

Also, fish is becoming more expensive compared to other food products because of its high demand. To date, this increased demand is expected to cause the price of high value fish to increase by 15% in real terms by 2020 (DEAT, 2006). This situation brings an opportunity for aquaculture producing areas to take advantage of the current situation and prioritise on increasing aquaculture production. The Western Cape, as being one of these areas, has the opportunity to improve its aquaculture production. This is clearly supported by the sector’s potential and promising projections.

WHY IS AQUACULTURE CONSIDERED IMPORTANT IN THE WESTERN CAPE?

Despite the immature nature of aquaculture in South Africa, the industry has immense potential in enhancing its contribution to the country’s economy. There are substantial numbers of commercially successful operations showing considerable growth potential in the country particularly in the Western Cape. A recent survey (Botes et al., 2009) revealed that more than 39% of the aquaculture farming enterprises in South Africa were situated in the Western Cape, making the province the most significant contributor to national Gross Domestic Product (GDP) in terms of export-based aquaculture production.

Various marine species such as abalone, silver kob, dusky kob, yellowtail, seaweed, mussel, and oyster and freshwater species such as trout, ornamentals, koi carp, tilapia and marron are currently cultivated in the province. However, different types of production systems ranging from capital intensive marine pump ashore units to freshwater aquaculture (pond, cage and tank production) need to be developed further in the province to provide additional opportunities for its citizens and make a meaningful contribution towards livelihoods improvement and job creation.

Conversely, while aquaculture is often considered a source of animal protein for household consumption, a high potential also exists for cash income generation. Botes et al (2006) indicated that there is a steady increase in employment since 2001 in this sub-sector. In 2008 the aquaculture industry created 2192 jobs, of the total number of people employed more than 60% of the employment originates from the Western Cape. Recent study revealed that employment in the sector grew up by 80% between 2005 and 2008 (Botes et al, 2009). This is due to the fact that the fishing industry demands a high labour force and thus employment creation is guaranteed. With noted great potential for job creation, a huge number of people also benefit indirectly in the processing industry (feeds, processing, security, transport, packaging, manufacturing of equipment, research, government services).

Furthermore, aquaculture is viewed as a commercially viable industry providing export opportunities. South Africa is a net-exporter of fish products; in 2007 the country’s fish industry (wild and aquaculture) exported its production to a value estimated at R3.4 billion. In both value and percentage, South African fish exports plays an important role in some foreign countries, for

This article outlines a learning curve to understand the aquaculture environment and its contribution towards sustainable aquaculture in the Western Cape. Based on existing efforts to promote sustainable aquaculture and the need for improved quality of life, it is important to understand how success in increasing aquaculture production can contribute towards the local economy. With such information, a question of why aquaculture should be seen as important in the economy should be answered. It is worth mentioning that an additional focus on this industry can be assumed to forecast a meaningful difference in certain areas in terms of employment creation and other benefits such as foreign exchange earnings.
example: Spain imports 25.1% of South African fish products, Italy 13.3%, Japan 10.3%, Hong Kong 9.4%, United States 7.5%, Australia 6.0%, Portugal 4.8%, the United Kingdom 4.2% and other countries 18.5% (SARS, 2007). Of the countries mentioned, Spain is South Africa’s single largest fish importer (figure 1).

Figure 1: Value distribution of South African fishery exports (%)

In comparison to other provinces of the country, the Western Cape is a leading exporter of aquaculture products. The province exported fish products (wild and aquaculture) with a total value of R2.9 billion in 2007 (figure 2), representing more than 80% of the total country’s fish exports (SARS, 2007). The data indicates that, of the total exports estimated at R3.4 million, 84% comes from the Western Cape, 3% Gauteng, 12% Eastern Cape and 1% from KwaZulu-Natal.

Figure 2: South African fish exports per province (%)

The data above clearly shows that success in the aquaculture sector can contribute and play a key role in the overall development of the province. The sector provides improved livelihoods for certain areas in the province where work opportunities are otherwise limited or do not exist. Hence, aquaculture development can be seen as bringing with it cash to areas which may not merit consideration for other types of industry.

MARKET OPPORTUNITIES IN THE AQUACULTURE INDUSTRY

Based on the projected global demand and supply of fisheries products, the opportunity for sustained growth of aquaculture production is good. With the decline in fisheries, it is likely that aquaculture produced products may fill some of these vacated market niches (Nomura, 2009). Markets for fish and fish products are becoming increasingly lucrative at a global level as dietary shifts in middle to high income market segments progressively favour seafoods. It is therefore increasingly a seller’s market (Karaan, undated). Even despite the global downturn, global rising demand for aquaculture products continues and is projected to grow at 3.8% per annum until 2020. The increasing short supply of fish products on the local market (e.g. hake and linefish) has resulted in a sharp rise in prices, making aquaculture an increasingly viable economic activity. This clearly indicates that both local and export opportunities still exist for aquaculture farmers and producers. Therefore, this offers excellent opportunities for fish farmers to enter this market (Shipton and Britz, 2007). Furthermore, because of population increase, health considerations (white meat being regarded as part of healthier diet), it appears that the current demand of fish is not expected to drop any time soon (Letsema, 2002).

Nevertheless, as promising as it may be in terms of market opportunities, consumers on the other hand are becoming more quality conscious and demanding. Consumer preferences have led to increased changing demand for fishery products. This shift in preferences is related to changes in dietary habits toward nutritional foods. Consumers are interested in greater diversity in food products. This, however, means that future growth will be driven largely by market requirements and consumer perceptions.

CONCLUSION

The potential to develop an equitable aquaculture sector in the Western Cape is positive, provided that certain economic and environmental issues are taken in consideration. This sector has shown considerable growth in the region, especially for the most growing species such as trout and abalone. Technically, tilapia is another potential species; however, there are questions concerning warming climate and infrastructure. The aquaculture sector has the potential to directly and indirectly contribute to the growth of the local, provincial and national economy through being competitive and sustainable at national, provincial, local and community level. It will also create gainful employment and livelihood improvement opportunities. The province has sufficient water resources to justify a larger industry, but care has to be exercised on the environmental effects which will require controls. Based on the fact that the Western Cape is both a leading producer and exporter of fish products in South Africa, the sector has the ability to better support the livelihoods of poor coastal communities. Hence, priority should be given to issues related to promotion of sustainable aquaculture.

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